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AP/ 3626
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Brief
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MAY 20 2004

Petitioner's Docket No. FERN-P006

Commissioner for Patents
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GROUP 3600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Dennis Sunga Fernandez

Application No.: 09/435,504

Art Unit: 3626

Filed: 11/06/1999

Examiner: Morgan, Robert W.

For: BIOINFORMATIC TRANSACTION SCHEME

**TRANSMITTAL OF REPLY BRIEF
(PATENT APPLICATION - 37 C.F.R. § 1.193)**

1. Transmitted herewith, in triplicate, is the REPLY BRIEF in this application, with respect to the Notice of Appeal filed on 6/18/2003.

2. STATUS OF APPLICANT

This application is on behalf of

☐ other than a small entity

☒ small entity

A statement:

☐ is attached.

☒ was already filed.

X Applicant does not believe that any payment of fee is needed in association with this communication. However, should Applicant inadvertently miscalculated the required fee, the Commissioner is hereby authorized to charge any necessary amount associated with this communication or credit any overpayment to **Deposit Account No: 500482**.

05-10-04
Date

Respectfully submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:)
DENNIS SUNGA FERNANDEZ) Examiner: Morgan, Robert W.
Application No.:) Art Unit: 3626
09/435,504)
Filed: 11/06/1999)
For: BIOINFORMATIC)
TRANSACTION SCHEME)

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GROUP 3600

REPLY BRIEF

This is in response to the Examiner's Answer filed on March 9, 2004.

**THE EXAMINER FAILS TO ESTABLISH A *PRIMA FACIE* CASE OF
OBVIOUSNESS.**

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Appellant submits that because none of the prior art of-record cited by the Examiner teaches or suggests all the claim limitations, particularly the limitation of "personal genetic nucleotide profile" that is required by all of the claims in Appellant's invention, the Examiner still fails to establish a *prima facie* case of obviousness.

In the Answer (page 21, lines 1-11,) the Examiner attempts ostensibly to fill-in the missing limitation by citing 3 new references (i.e., U.S. Patent No. 5,956,409 to Chan

et al. for "Secure Application of Seals"; U.S. Patent No. 6,084,967 to Kennedy et al. for "Radio Telecommunication Device and Method of Authenticating a User with a Voice Authentication Token"; and U.S. Patent No. 5,917,913 to Wang for "Portable Electronic Authorization Devices and Methods Therefor".)

However, none of these newly-cited references teach or suggest the specific limitation of "personal genetic nucleotide profile," but merely refer to DNA or coding sequences generally as biometric data, without any disclosure or suggestion of profiling (i.e., such that certain portions of the personal genetic nucleotide profile may or may not be voluntarily selected for access to evaluate user transaction.)

Moreover, Appellant respectfully notes that such arbitrary gathering of isolated references, none of which are properly of-record in this case, to reconstruct the Examiner's case in hindsight is clearly impermissible, and hence such newly-cited references should not be properly considered herein.

THERE IS NO SUGGESTION OR MOTIVATION TO COMBINE THE PRIOR ART REFERENCES.

According to MPEP 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Appellant submits that because there is no teaching, suggestion or

motivation found to combine the primary prior art references, particularly U.S. Patent 6,366,682, to Hoffman et al. for “Tokenless Electronic Transaction System” with U.S. Patent 6,275,824 to O’Flaherty et al. for “System and Method for Managing Data Privacy in a Database Management System,” to produce the claimed invention, the Examiner hence fails to establish obviousness.

In the Answer (page 5, line 20 to page 6, line 2) the Examiner argues that “it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate the privacy preference including ‘opt-outs’ as taught by O’Flaherty et al. within the tokenless electronic system using biometric samples as taught by Hoffman et al. with the motivation of protecting the rights of individuals regarding data abuse by those in control of an individual’s stored information.”

However, it is respectfully submitted by Appellant that such attempt by the Examiner to combine the Hoffman and O’Flaherty references is unreasonable and misguided, and thus would not have been obvious to a person of ordinary skill in the art at the time of the invention was made. In significant part to Appellant’s case, the claimed invention is directed centrally to solving a confidentially-sensitive business-method problem in an emerging area of sophisticated technology known as “bioinformatics” (see background in original specification, page 2, lines 7-20,) which is the interdisciplinary convergence of computer and bio-genetic technologies. Hence, Appellant submits that the appropriate person of ordinary skill in this art at the time the invention was made would necessarily have combined scientific knowledge and technical education in both

computers and bio-genetics. Factors that may considered in determining level of ordinary skill in the art include (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems, (4) rapidity with which innovations are made; (5) sophistication of the technology, and (6) educational level of active workers in the field." *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984).

Because both the Hoffman and O'Flaherty references provide only limited teachings in the specific area of computer technology, without any suggestion pertaining to bio-genetics, let alone to selective access of certain personal genetic nucleotide profile as required in Appellant's claimed invention, Appellant submits that neither of these references may be combined as the Examiner proposes to produce an invention in the non-analogous, more-sophisticated area of bioinformatics.

Additionally, regarding the Hoffman reference, the Examiner argues in the Answer (page 20, line 21 to page 21, line 1) that because Hoffman mentions that a biometric scanner may include "any one of fingerprint scanner, voice input device (microphone), palm print scanner, retinal scanner, or the like . . ." (Hoffman, column 9, lines 30-33, emphasis added), then such biometric scanner would be well-known in the art obviously to provide or somehow encompass bio-genetic data particularly "personal genetic nucleotide profile." And regarding the O'Flaherty reference, the Examiner argues in the Answer (page 5, lines 6-10) that certain "privacy preferences include 'opt-outs' for

(1) direct marketing, (2) disclosure of personal data along with information identifying the consumer, (3) anonymous disclosure of personal data, (4) disclosure of personal data for purposes of making automated decisions, and (5) disclosure or use of sensitive data . . . “ (O’Flaherty, column 7, lines 10-36,) then such privacy preferences or so-called opt-outs would be well-known in the art obviously to provide or somehow use bio-genetic data particularly “personal genetic nucleotide profile.”

Appellant respectfully disagrees with the foregoing implicit findings by the Examiner, which attempt to establish obviousness through the combined teachings of Hoffman and O’Flaherty, but via teaching, suggestion or motivation from other sources apparently to introduce the central element of “personal genetic nucleotide profile” in the claimed invention. In fact, Appellant respectfully submits that neither Hoffman, O’Flaherty, nor any of the references properly in the record would disclose, suggest, or motivate to a routineer in the field of bioinformatics the claimed invention as a whole, which automates in a novel scheme the voluntary and involuntary selection respectively of certain accessible and inaccessible portions of personal genetic nucleotide profile. In particular, upon looking at the references primarily cited by the Examiner, the compelling motivation for the Hoffman reference is principally to reduce consumer fraud by eliminating token use, and thus Hoffman relies on sampling fingerprints, voice input, palm print, retinal information, “or the like,” but without any suggestion or motivation to use personal genetic nucleotide profile to solve the problem of fraudulent buyer identification. In addition, the compelling motivation for the O’Flaherty reference is principally to access marketing-preference data controllably, but again without any

suggestion or motivation to use personal genetic nucleotide profile to solve the problem of market-preference data access. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)

PRIOR ART REFERENCE TEACHES AWAY FROM THE INVENTION.

A reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must be considered. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986). And the ultimate determination of patentability is based on the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In the Answer (page 23, line 21 to page 24, line 1-12), the Examiner argues: "The combination purported by the Examiner does not discourage individuals from revealing or permitting access to genetic data, as the Examiner never relied upon Beecham for this limitation. . . Additionally, the Examiner respectfully submits that the O'Flaherty et al. reference, and not Beecham *per se*, that was relied upon for the specific teaching of privacy preferences including opt-outs."

Appellant respectfully submits that the Examiner's attempt to consider only a portion of the Beecham reference, but then intentionally ignore the rest of such key

reference's teachings is unreasonable and improper. In fact, because the Beecham reference clearly discourages against disclosure of private genetic information due to various fears and concerns for potential private and governmental misuse of private genetic information (Beecham, column 18, lines 47-56,) Appellant submits that the persuasive weight of this prior art evidence must be duly considered in its entirety; so that as argued previously in the Appeal Brief, Appellant submits that a person of ordinary skill upon reading the Beecham reference would be led not to disclose any portion of private genetic information in an automated transaction, which is a direction that is divergent from the path taken in the claimed invention.

In summary, Appellant respectfully submits that, upon looking at the subject matter of Appellant's invention as a whole, the references of record do not render the claimed invention obvious under 35 U.S.C. 103(a), and accordingly all claims are in condition for allowance. If additional charges not accounted for herein, please charge to Deposit Account No. 500482.

Date: 05-10-04

Respectfully Submitted,



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Julie K. Mauson
05/10/2004

Signature

Signature Date